

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

**NOT DEAD YET
MANUFACTURING, INC.,**

Plaintiff,

v.

**PRIDE SOLUTIONS, LLC, AND,
MAY WEST MANUFACTURING,**

Defendants.

)
)
)
)
)
)
)
)
)
)
)

No. 13 C 3418

Judge Rebecca R. Pallmeyer

MEMORANDUM OPINION AND ORDER

Plaintiff Not Dead Yet Manufacturing, Inc. (“Not Dead Yet”) is an Illinois corporation whose president, Kenneth E. Shoup, invents agricultural products, such as planting and harvesting machinery. (Comp. ¶¶ 1, 8-10 [1].) Among those products is a device known as a “stalk stomper”—an implement attached to the front of a combine or tractor to protect the vehicle’s tires from being damaged by the stiff stalks left after grain or produce is harvested. Stalk stompers can be cumbersome to attach and remove from the combine or tractor. To address this problem, Mr. Shoup developed and, in 2013, received a patent for a “quick connect and disconnect assembly” for securing a stalk stomper to a tool bar without the need for tools. U.S. Patent No. 8,418,432 (the “‘432 Patent”). In 2014, Mr. Shoup was awarded a related patent, which added specific claims directed at the overall quick connect and disconnect design concept. U.S. Patent No. 8,745,963 (the “‘963 Patent”). Most notably, the ‘963 Patent provides for adjustments to the angle of the stalk stomper as it is attached to the tractor and includes a torsion spring component, which affords several advantages over a conventional coil spring.

In this lawsuit, Plaintiff charges Defendants Pride Solutions, LLC (“Pride Solutions”) and its agricultural division, May West Manufacturing (“May West”), with infringing both the ‘432 and ‘963 Patents. The parties have presented competing interpretations of four claim terms in the

'432 Patent and two claim terms in the '963 Patent. The court's construction of those terms follows.

BACKGROUND

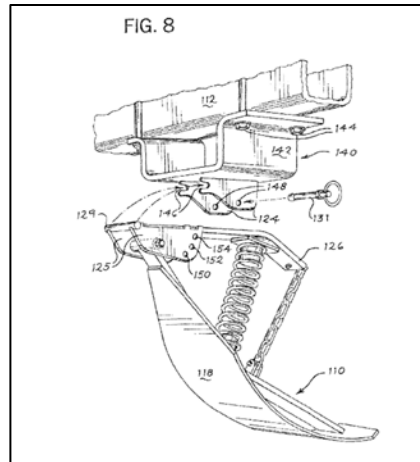
A. The Patented Invention

A stalk stomper is a commonly used agricultural implement that attaches to the front of a tractor or combine. It is designed to protect a tractor or combine's tires from damage caused by corn stalk, bean stubble, and other types of cut stalks. ('432 Patent, JA Ex. A, col., ll. 14-16 [69-1].) The top part of the stalk stomper is attached to the tractor via a bracket and tool bar assembly positioned on the front of the vehicle. (*Id.* at col. 1, ll. 16-21.) The bottom part of the stalk stomper acts as a shield, forcing stalk and other stubble to the ground as the tractor or combine moves through the field. (*Id.*) The top part of the stalk stomper and bottom shield are joined in the front, but connected by a spring, as well, which holds the bottom shield in tension against the ground. (*Id.* at col. 1, ll. 23-26.) They also are connected by a chain, which limits the force that the spring can exert against the bottom shield. (*Id.* at col. 1, ll. 26-29.) Ordinarily, an individual must use tools to install the stalk stomper to the tractor's bracket and tool bar, necessarily a time-consuming process. ('432 Patent, JA Ex. A, col. 1, line 24.) Mr. Shoup's patented "quick connect/disconnect coupling for a stalk stomper," however, allows for an individual to install the stalk stomper to a vehicle's tool bar without the need for tools. (*Id.* at col. 1, ll. 32-36.)

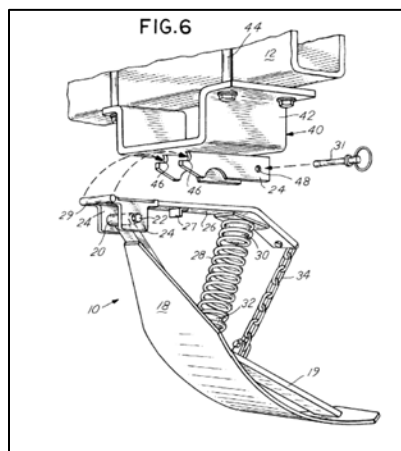
A depiction of the preferred embodiment of the invention, taken from the '432 Patent, is reproduced below. ('432 Patent, JA Ex. A, FIG. 6.) The Patent describes an assembly comprised of: a bracket (42) with a pair of transversely aligned recessed arm members (46) and holes (48); a pin (31); and a plate member (26) with a retention stop (27), depending arms (24) and cross bar (29).

To connect the stalk stomper (10) to the tool bar assembly (12), the cross bar (29) is engaged in the recesses (46) and the stalk stomper (10) is pivoted so that the angle plate member (26) of the stalk stomper (10) is above the top of the pair of holes (48) The pin (31) will engage the retention stop (27) to preclude longitudinal movement of the stalk stomper (10) [and] . . . to prevent the cross bar or transverse bar (29) from disengaging from the recesses (46) in use.

(*Id.* at col. 4, ll. 15-25.)



The '963 Patent describes a very similar invention, but also includes a slightly different depiction of the preferred embodiment. ('963 Patent, JA Ex. B, FIG. 8 [69-2].) As set forth in the description of the invention section in the '963 Patent, the pin (131) is inserted into holes on the bracket (148), as well as holes (150, 152, 154) on sidewalls (125) of the plate member (126). (*Id.* at col. 6, ll. 38-53.) The desired angle of the stalk stomper is obtained by selecting from the pair of holes (150, 152, 154) on the sidewalls (125). (*Id.* at col. 6, ll. 59-63.)



B. The Disputed Claim Terms of the '432 Patent

The '432 Patent sets forth two claims. ('432 JA Ex. A, col. 4, line 57 – col. 5, line 16.)

The parties dispute the meaning of the terms emphasized below in claim 1:

1. A quick connect/disconnect coupling for securing a stalk stomper to a tool bar assembly on a combine corn head without the need for tools, the tool bar assembly comprising a bracket having a pair of spaced-apart arm members depending therefrom, each having a recess therein, the recesses being generally **transversely** aligned and a pair of holes in the bracket spaced from the recesses, the pair of holes being generally **transversely** aligned, and a pin adapted to be received in the holes, the stalk stomper being provided with a **plate member having a cross bar** adapted to be received in the recesses in the depending arm members on the tool bar assembly and a **retention means on the plate member, whereby, to connect the stalk stomper to the tool bar assembly, the cross bar is engaged in the recesses and the stalk stomper is pivoted so that the plate member is above the pair of holes and the pin can be inserted into the transversely aligned holes** to connect the stalk stomper to the tool bar assembly, the pin engaging the **retention means** so as to prevent longitudinal movement of the stalk stomper with respect to the tool bar assembly in operation to prevent the cross bar from disengaging from recesses in use, and to disconnect the stalk stomper from the tool bar assembly, the pin is removed from the **transversely** aligned holes and the cross bar is removed from engagement with the recesses in the arm members.

(*Id.* at col. 4, line 57 – col. 5, line 13.)

C. The Disputed Claim Terms of the '963 Patent

The '963 Patent sets forth twelve claims, only four of which contain disputed terms.

('963 Patent, JA Ex. B, col. 8, line 1 – col. 9, line 27.) The disputed terms, emphasized below, are found in independent claims 1 and 6 and dependent claims 11 and 12:

1. A stalk stomper assembly adapted for adjustable attachment, the stalk stomper comprising: . . . an upper support member . . . comprising an upper plate member . . . and sidewall members extending longitudinally from the cross bar member along the plate member, the sidewall members defining a pair of **transversely** opposed attachment holes for securing a first end of the skid shoe member, . . .
6. A stalk stomper assembly comprising: . . . (b) a detachable bracket member . . . including a first and a second arm member, . . . each of the first arm member and the second arm member defining a recess, the first arm member recess and the second arm member recess being **transversely** aligned, each of the first and second arm members further defining a hole spaced from the recesses, the holes of the first and second arm members being generally **transversely** aligned; . . . (d) a support member including: a crossbar adapted for receipt into the recesses; . . . a **retention member**, the **retention member** adapted such that when the support member and the bracket member are engaged the pin member is

positioned within the holes of the first and second arm member and engages the **retention member** of the support member to restrict longitudinal movement of the support member relative to the bracket member;

11. The stalk stomper assembly as in claim 6, wherein the **retention member** comprises at least one pair of mounting holes.
12. The stalk stomper assembly as in claim 9, wherein the **retention member** comprises a plurality of pairs of adjustment holes formed along an arcuate path.

(*Id.*)

D. Prosecution History

Mr. Shoup initially filed his patent application with the U.S. Patent and Trademark Office (“PTO”) on July 19, 2011. (‘432 Patent, JA Ex. A, at 1.) The initial application included five claims. Mr. Shoup withdrew claims 1 through 3 after the PTO Examiner rejected these as obvious based on prior art reviewed by the office.¹ (JA Ex. C, at 46, 51-54 [69-3].) The PTO Examiner then provided Mr. Shoup with a Notice of Allowance of pending claims 4 and 5, which were issued on April 16, 2013 in the ‘432 Patent as claims 1 and 2. (*Id.* at 22-26.)

On June 26, 2013, Mr. Shoup filed another patent application with the PTO for a similar stalk stomper invention, but with new features, including a torsion spring and a component allowing for adjustments to the angle of the stalk stomper. (‘963 Patent, JA Ex. B, at 1.) The initial application included twelve claims, and was supplemented twice, ultimately including twenty-four claims. (*Id.* at JA Ex. D, at 80 [69-4].) Mr. Shoup withdrew twelve of the claims after they were rejected by the PTO Examiner. (*Id.* at 38-44, 118.) On June 14, 2014, the remaining claims were issued in the ‘963 Patent as claims 1 through 12. (‘963 Patent, JA Ex. B, at 1.)

In the meantime, on May 7, 2013, Plaintiff initiated this lawsuit, charging Defendant Pride Solutions with infringing the ‘432 Patent. Pride responded by filing a petition with the PTO Patent Trial and Appeal Board (PTAB), requesting an *in partes* review of the ‘432 Patent claims.

¹ Prior art considered by the PTO included patents issued by Brown *et al.* (U.S. Patent No. 5,634,736 and U.S. Patent Not. 5,915,837), Rohweder *et al.* (U.S. Patent No. 3,982,384), Kistner (U.S. Patent No. 4,890,974), Woerman (U.S. Patent No. 5,890,871), and Schneider *et al.* (U.S. Patent No. 5,685,689) involving various types of couplings for heavy equipment vehicles, including tractors and combines. (JA Ex. C, at 56, 175.)

(See *generally* JA Ex. C.) In its petition, filed on September 26, 2013, Pride advanced two arguments: first, the claim term “retention means” was not a proper means-plus-function element as permitted under 35 U.S.C. § 112(6); and second, the patent was obvious under 35 U.S.C. § 103(a). (*Id.* at 6, 9.) In support of its § 103(a) argument, Pride Solutions relied on six different prior art references.² (*Id.* at 126-160.) In a written decision on March 17, 2014, the PTAB denied Pride Solutions’ petition, concluding that “‘retention means’ is a means-plus-function term that includes a retention block or a retention stop in the form of an L-shaped bracket,” and that Pride Solutions had not provided sufficient evidence showing that any of the prior art involved a “retention means” as the PTAB had construed the term. (*Id.* at 11-12.)

E. The Instant Lawsuit

Not Dead Yet filed suit against Pride Solutions and its agricultural division May West on May 7, 2013, alleging that certain stalk stompers being manufactured and sold by Pride Solutions infringe on Not Dead Yet’s ‘432 Patent. (Compl. ¶ 37.) On June 13, 2014, Not Dead Yet amended its complaint to include state and federal law claims of false advertising by Pride Solutions.³ (1st Am. Compl. ¶¶ 68-94 [48].) Then, after issuance of the ‘963 Patent, Not Dead Yet filed a second amended complaint on June 26, 2014, adding an allegation that Pride Solutions’ stalk stompers infringe on the ‘963 Patent, as well. (2d Am. Compl. ¶¶ 99-103 [52].) Pride Solutions denies that its products infringe on the ‘432 and ‘963 Patents, and asserts affirmative defenses including that the ‘432 Patent and ‘963 Patent are invalid and/or unenforceable. (Am. Ans. at 23-33 [54].)

² In its PTO petition, Pride Solutions discussed agricultural implements manufactured by Brown *et al.* (U.S. Patent No. 5,634,736), Fo (U.S. Patent No. 2006/0242865), Lankota (LAN SS600C 2, Installation Instructions, Stalk Stomper Attachment for John Deere® 600 Series Corn Heads), Montgomery (U.S. Patent No. 3,874,533), Pierson (U.S. Patent No. 7,658,058), and Wolfe (U.S. Patent No. 2,935,802). (*Id.* at 5, 126-160.)

³ Not Dead Yet brought claims under The Lanham Act (15 U.S.C. § 1125(a)(1)), the Illinois Uniform Deceptive Trade Practices Act (815 ILCS 510/2), and the Illinois Consumer Fraud And Deceptive Business Practices Act (815 ILCS 505 *et seq.*). (1st Am. Comp. ¶¶ 68-94.)

The parties dispute the meaning of a number of claim terms in the '432 and '963 Patents, namely "plate member" and related terms, "retention means," "retention member," and "transversely." In addition, the parties dispute whether the "whereby" clause contained in claim 1 of the '432 Patent imposes a limitation on the claim. This court addresses the disputed claim language below.

DISCUSSION

A. Legal Standards Governing Claim Construction

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1311–12 (Fed. Cir. 2005) (*en banc*) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). Claim construction is "the process of giving proper meaning to the claim language," and thus defines the scope of the protected invention. *Abtox, Inc. v. Exitron Corp.*, 122 F.3d 1019, 1023 (Fed. Cir. 1997). Claim construction is a matter of law for the court to determine. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996).

As described in *Phillips*, the court begins its claim construction analysis by looking to the words of the claims themselves, giving those words their ordinary and customary meaning as understood by "a person of ordinary skill in the art in question at the time of the invention." *Phillips*, 415 F.3d at 1312-13. In some cases, the court's claim construction "involves little more than the application of the widely accepted meaning of commonly understood words." *Id.* at 1314; *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) ("[D]ictionary definitions may establish a claim term's ordinary meaning[.]" Even "readily apparent" claim terms, however, must be read "in the context of the entire patent, including the specification." *Phillips*, 415 F.3d at 1312-13. If the meaning of a disputed term is not apparent from the claim language, looked at in the context of the patent as a whole, the court may turn to other intrinsic

evidence, namely the specification and prosecution history. The specification in particular is an important guide to the meaning of a disputed term, *id.* at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)), because it includes a “full” and “exact” description of the claimed invention, 35 U.S.C. § 112, thereby providing the reader with a “full understanding of what the inventor[] actually invented and intended to envelop with the claim.” *Id.* at 1316 (internal quotations omitted).

The prosecution history is also helpful to the court’s analysis because it “provides evidence of how the PTO and the inventor understood the patent.” *Id.* at 1317. Prosecution history consists of the record of proceedings before the PTO and may include prior art cited by the patentee during the examination of the patent. *Id.* The court must be mindful, however, that the prosecution history represents a negotiation between the PTO and the inventor and thus “is less useful [than the specification] for claim construction purposes.” *Id.*

Finally, while in most situations an analysis of the intrinsic evidence alone will resolve any ambiguity in a disputed claim term, the court may also consider extrinsic evidence, such as technical dictionaries, treatises, and expert testimony. *Id.* at 1317-18. Extrinsic evidence is deemed less reliable than the intrinsic evidence, however, for several reasons outlined by the Federal Circuit in *Phillips*. *Id.* at 1318-19. In cases where the intrinsic evidence unambiguously describes the scope of the patented invention, therefore, reliance on extrinsic evidence is improper. *Vitronics Corp.*, 90 F.3d at 1583.

With these standards of construction in mind, the court turns to the disputed claim language. The court will also briefly address Plaintiff’s motion to strike Defendants’ expert’s claim construction opinions. [72]

B. Defendants’ Expert’s Claim Construction Opinions

Plaintiff moves to strike the opinions of Defendants’ expert, Dr. Frederick T. Elder (“Dr. Elder”) on the grounds that his opinion does not take into account important intrinsic evidence, such as the prosecution history. (Pl’s Mem. in Support of Motion to Strike, at 1 [73].) Whatever

the merits of Plaintiff's objections to Dr. Elder and his qualifications as an expert, the court does not need to address these objections because it has not considered Dr. Elder's opinion as part of the claim construction process. Rather, the court's decision is based on other more reliable intrinsic and extrinsic evidence. The motion to strike is therefore stricken as moot.

C. Plate Member and Related Terms ('432 Patent)

Claim Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
plate	See construction for "plate member"	a thin, flat sheet of metal of uniform thickness
plate member	an upper support structure comprising a generally planar upper portion	a plate formed as a planar plate in exactly one plane or formed as an angle plate in exactly two intersecting planes, and with a width that is less than a spacing of spaced apart arm member depending from a bracket so that the plate will fit between arm members in an assembled relationship, and a thickness that is less than a spacing between the top of the holes in the arm members and the bottom of the bracket so that, with the pins in the holes, the plate member will be secured between the bracket and the pin.
plate member having a cross bar	plate member including at least a cross bar	plate member having formed thereon a cross bar

1. Plate Member

The disputed term "plate member"⁴ appears in claim 1 of the '432 Patent in the following context: "the stalk stomper being provided with a plate member having a cross bar . . . and a

⁴ Defendants assert that the terms "plate" and "plate member" should be construed separately because the term "plate" appears once in the specification without being followed by the term "member." Claim construction, however, focuses on construction of claims, not on other parts of a patent. See *Vitronics Corp.*, 90 F.3d at 1581-82 (defining "claim construction" as "construction of the asserted *claim*") (emphasis added). Accordingly, while the commonly

retention means on the plate member, whereby, to connect the stalk stomper to the tool bar assembly, . . . the plate member is above the pair of holes[.]” (‘432 Patent, JA Ex. A, col. 4, line 65 – col. 5, line 4.)

Defendants urge an extremely narrow construction of “plate member,” which they contend is supported by the specification. They point to the specification’s description of the plate member’s width and thickness and to its exclusive reference to two “species” of plate member: “angle member” and “planar member.”⁵ (Defs’ Br. at 14-15 [70].) Defendants argue the word “plate” in particular means “a thin, flat sheet of metal of uniform thickness,” based on its commonly understood meaning. (See Joint Claim Construction Chart and Status Report (“Claim Construction Chart”), Ex. 1 [87-1].) In support of their construction, Defendants rely not only on intrinsic evidence, but also on extrinsic evidence in the form of the American Society for Testing and Materials (hereinafter, “ASTM”) standards and an expert declaration. (Defs’ Br. at 12-13.) Under the ASTM standards, “plate” is defined as a “flat, rolled sheet having a width and length much greater than thickness.” (*Id.*, Ex. F, at 6 [70-6].) Similarly, Defendant’s expert states that, within the mechanical engineering industry, “plates are necessarily of uniform thickness . . . necessarily flat . . . [and] have a thickness in excess of 3/16 inch.” (*Id.*, Ex. A, at 9 [70-1].)

Plaintiff argues for a much broader interpretation; Plaintiff contends that “plate” should be construed to mean any “upper support structure comprising a generally planar upper portion.” (See Claim Construction Chart, Ex. 1.) Plaintiff directs the court’s attention to the patent specification, which does not appear to limit “plate member” to a particular shape or structure, as well as to prior art cited in the prosecution history, which uses the term “plate” to

understood meaning of “plate” is a necessary part of the court’s construction of the term “plate member,” the court does not purport to construe terms outside of the claims themselves.

⁵ An “angle member,” according to Defendants, is a “single piece of plate having a single bend along its longitudinal length,” while a “planar member” is a “single piece of plate.” (*Id.* at 16.)

refer to non-flat materials. (Pl's Br. at 7-10.) Plaintiff, specifically, points to two patents (U.S. Patent 5,634,736 and U.S. Patent 5,915,837) (hereinafter, the "Brown Patents") for "quick connect-disconnect coupling device[s]," which use the terms "connecting plate" and "mounting plates" to describe thin, curved pieces of material. (*Id.* at 11 n.3; Ex. 7 & 9 [71-8] [71-10].) Plaintiff also cites to a patent (U.S. Patent 5,890,871) (hereinafter, the "Woerman Patent") for a "latching mechanism for a quick coupler," which calls a thin, curved sheet of material a "bottom plate" and a thin, non-curved sheet of material a "side plate." (*Id.* at 11 n.3; Ex. 8 [71-9].)

The ordinary meaning of "plate" is "a smooth flat thin piece of material," such as a "metal . . . sheet." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 949 (11th ed. 2003), and nothing in the claim language, nor the specification, provides the court with a reason to depart from this ordinary meaning. Indeed, the specification's repeated reference to an "angle plate member" confirms that a "plate" may not be angled. (See, e.g., JA Ex. A, col. 1, ll. 27, 44, 47-48.) Prior art cited during the prosecution history also supports the conclusion that the term "plate" denotes a smooth flat thin sheet of metal, though it may be slightly angled or otherwise curved. (See Pl's Br. at 7.) Some of the prior art, such as the Woerman Patent, uses "plate" to refer to a smooth flat thin sheet of metal that is entirely straight (Pl's Br., Ex. 8), while other prior art, such as the Brown Patents, use the same term to refer to a smooth flat thin sheet of metal that contains minor curves.⁶ (*Id.*, Ex. 7 & 9.)

Neither side's construction of the term "plate" in this case is fully consistent with this ordinary meaning. Plaintiff interprets the term "plate" as any "upper support structure" that "compris[es] a generally planar upper portion." (Claim Construction Chart, Ex. 1.) That construction of the term appears to be broader than what is supported by the intrinsic record. A

⁶ Plaintiff also points to a prior art stalk stomper comprised of a structural component that appears to serve a similar purpose as the "plate member" in the '432 Patent. (Pl's Br. at 7.) The component in the prior art has a flat upper portion, with two sides that protrude downwards. (*Id.*) Plaintiff calls this component a "plate member" and then uses it as so-called intrinsic evidence in support of Plaintiff's broad construction of the term "plate member" in the '432 Patent. (*Id.*) Because the prior art does not use the word "plate" to describe the structure, however, its evidentiary value is limited.

box-shaped “support structure” comprised of four distinct side pieces has “a generally planar upper portion,” for example, but it would be incorrect to call the entire structure a “plate” under the meaning adopted by dictionaries and prior art. Rather, it would be more accurate to call each individual side of the box a “plate.” The specification and prosecution history are also devoid of evidence that the words “support structure” were used in reference to “plate member,” as Plaintiff suggests. (See Pl’s Br. at 7 (quoting *Kinik Co. v. Int’l Trade Comm’n*, 362 F.3d 1359, 1365 (Fed. Cir. 2004) (“The words of patent claims have the meaning and scope with which they are used in the specification and prosecution history.”).)

Conversely, the court is unpersuaded by Defendants’ arguments that the patent language supports the following very specific meaning of “plate member”:

a plate formed as a planar plate in exactly one plane or formed as an angle plate in exactly two intersecting planes, and with a width that is less than a spacing of spaced apart arm member depending from a bracket so that the plate will fit between arm members in an assembled relationship, and a thickness that is less than a spacing between the top of the holes in the arm members and the bottom of the bracket so that, with the pins in the holes, the plate member will be secured between the bracket and the pin.

(Claim Construction Chart, Ex. 1.) While it is true that “claim terms are understood in light of the specification, a claim construction must not import limitations from the specification into the claims” absent a clear disclaimer of claim scope. *Deere & Co. v. Bush Hog, LLC*, 703 F.3d 1349, 1354 (Fed. Cir. 2012); *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1373 (Fed. Cir. 2007). The Federal Circuit has thus “repeatedly warned against confining the claims” to embodiments or examples that the inventor has provided in the specification. *Phillips*, 415 F.3d at 1323. Accordingly, the court declines to adopt Defendants’ contention that the ‘432 Patent specification “defines the width and thickness required of the plate member” and confines the term to two specific “species.” (Defs’ Br. at 13-14). The court will not import these restrictions into the term “plate member” where the claim itself does not require that the term be limited in this manner.

The parties also dispute whether “plate member” is limited to “a single piece of an assembly” (Defs’ Br. at 15), or “just means ‘part of a whole’” and can include multiple parts. (Pl’s Br. at 13.) A Federal Circuit case cited by neither party offers some guidance. In *CCS Fitness, Inc. v. Brunswick Corp.*, the Federal Circuit held that “reciprocating member” could include a “multi-component, curved structure.” 288 F.3d 1359, 1367 (Fed. Cir. 2002). In reaching its decision, the court reasoned that “‘member,’ as defined by common and technical dictionaries, refers to a structural unit such as a . . . beam or tie, or a combination of these . . . or to a distinct part of a whole.” *Id.* (internal quotations and citations omitted). The court then rejected the argument that “member” was limited to a “structure comprising a single component only.” *Id.*

In the patent at issue in this case, however, the term “member” is preceded by the noun “plate,” which implies that “plate member” is limited to a single piece. This is because the commonly understood meaning of “plate,” as discussed above, means a “sheet” of material. Thus, while “member” in other contexts may include a structure with multiple components, the context in which it appears in the ‘432 Patent satisfies the court that “plate member” is limited to a single piece.

In light of the ordinary meaning of the term “plate,” as well as other intrinsic evidence, this court construes “plate member” as: “a *single* smooth thin flat sheet of material that may contain minor angles or curves.”

D. Plate Member “Having a Cross Bar”

A related dispute concerns whether the phrase “plate member having a cross bar” in claim 1 of the ‘432 Patent means the plate member “having formed thereon a cross bar,” which is Defendants’ position, or the plate member “including at least a cross bar,” which is the position taken by Plaintiff. (Claim Construction Chart, Ex. 1.) Plaintiff correctly recognizes that the construction of the phrase “plate member having a cross bar” is largely determined by the construction of the word “member.” (See Pl’s Br. at 12-13.) If “plate member” is limited to a

single component, as discussed above, it cannot include a cross bar. For this reason, “plate member having a cross bar” must mean “plate member having thereon a cross bar” because “plate member” is properly construed as a “single . . . sheet of metal” that cannot include other components. This construction is also supported by the specification, which provides that “[t]he implement includes a plate member having *thereon* a cross bar[.]” (‘432 Patent, JA Ex. A, col. 2, ll. 17-18 (emphasis added).)

E. Retention Means and Related Terms (‘432 Patent)

Claim Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
retention means	<p>If not subject to 112(f): “a structure formed with the plate member, such as a block or stop, adapted to physically engage a pin member and hold the position of the plate member in place relative to the bracket.”</p> <p>If subject to 112(f): “a physical block or a stop formed with the plate member that retains the position of the stalk stomper with respect to the mounting bracket by restricting longitudinal movement through engagement or abutment with a pin member.”</p>	“a retention block or a retention stop in the form of an L-shaped bracket”
Retention means “on the plate member”	Retention means is “supported by the plate member”	Retention means is “positioned to be in contact with the plate member”

1. Retention Means

The term “retention means” appears in claim 1 of the ‘432 Patent, which states that “the stalk stomper [will be] provided with . . . a retention means on the plate member.” (Patent ‘432, JA Ex. A, col. 4, line 65; col. 5, line 1.) The claim goes on to explain that “to connect the stalk stomper to the tool bar assembly . . . the pin can be inserted into the transversely aligned holes . . . the pin engaging the retention means so as to prevent longitudinal movement of the stalk

stomper” (*Id.* at col. 5, ll. 1-8.). The ‘432 Patent employs similar language in its description of the invention, where it states, for example, that “provided on the angle plate member 26 are retention means 27, which may be a retention block or a retention stop.”⁷ (*Id.* at col. 4, ll. 2-4.) In several other places, the patent also references the terms “retention stop” and “retention block” without any reference to “retention means.” (See, e.g., *id.* at col. 1, line 61; col. 2, ll. 1, 19, 25, 44-45; col. 4, ll. 11, 21.)

The parties’ central dispute about the term “retention means” is whether “retention means” is a means-plus-function term under 35 U.S.C. § 112(f). Section 112(f) provides a “limited exception” to the general rule that claims must “particularly point[] out and distinctly claim[] the subject matter of the invention,” 35 U.S.C. § 112(b), by permitting a claim to be expressed “as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof.” Unlike other claim terms, so-called “means-plus-function” terms under Section 112(f) are construed “to cover the corresponding structure, material, or acts described in the specification or equivalents thereof.” 35 U.S.C. § 112(f); *Function Media, LLC v. Google, Inc.*, 708 1310, 1317 (Fed. Cir. 2003).

Once the court establishes that a disputed claim term is drafted in a means-plus-function format, invoking § 112(f), construction of the term is a two-step process. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1351 (Fed. Cir. 2015). First, “[t]he court must identify the claimed function.” *Id.* Second, “the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Id.*

The threshold question, therefore, is whether “retention means” should be considered a means-plus-function limitation under 35 U.S.C. § 112(f). Defendants argue that “retention means” is governed by § 112(f) because the term “means” creates a presumption that Section 112(f) applies. (Defs’ Br. at 6.) Defendants also rely on the *inter partes* decision of the PTAB,

⁷ The summary section includes almost identical language: “Retention means in the form of a retention stop are provided on the plate member.” (*Id.* at col. 2, ll. 38-39.)

which determined that “retention means” should be considered a means-plus-function limitation under § 112(f). (*Id.* at 8.) Plaintiff urges that “retention means” is not governed by § 112(f). Plaintiff acknowledges that the use of the word “means” creates a rebuttable presumption that a term is within the purview of § 112(f), but argues that intrinsic evidence rebuts the presumption in this case. (Pl’s Br. at 14.) Specifically, Plaintiff relies on language in the claim and specification, which, in Plaintiff’s view, “shows a [person of ordinary skill in the art of the invention] would understand ‘retention means’ to be a type of structure, and not merely anything that retains the longitudinal position of a plate member relative to a bracket.” (Pl’s Br. at 14-15.)

As both parties understand, generally “the use of the word ‘means’ in a claim element creates a rebuttable presumption that § 112[(f)] . . . applies.” *Williamson*, 792 F.3d at 1348. In *Unidynamics Corp. v. Automatic Prods. Int’l, Ltd.*, for example, the Federal Circuit held the claim language “spring means tending to keep the door closed” was a means-plus-function limitation under § 112(f). 157 F.3d 1311, 1319 (Fed. Cir. 1998) (emphasis added). Similarly, the Federal Circuit in *B. Braun Medical, Inc. v. Abbott Laboratories* held that the phrase “means with the other body element for holding said disc firmly against said first means in such a manner that said disc is restrained from sideways movement” was subject to the requirements of § 112(f). 124 F.3d 1419, 1424 (Fed. Cir. 1997). “[T]he essential inquiry,” however, “is not merely the presence or absence of the word ‘means’ but whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for the structure.” *Williamson*, 792 F.3d at 1348. Accordingly, the presumption can be rebutted by relevant intrinsic and extrinsic evidence, *Personalized Media Commc’ns, LLC v. Int’l Trade Comm’n*, 161 F.3d 696, 704 (Fed. Cir. 1998), such as “where a claim recites a function, but then goes on to elaborate a sufficient structure, materials, or acts within the claim itself to perform entirely the recited function.” *Sage Prods. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427-28 (Fed. Cir. 1997).

This court finds that the presumption in this case has not been rebutted by the evidence. The pertinent part of the claim mentions that “[r]etention means” are “on the plate member” and is “engag[ed]” by a pin “to prevent longitudinal movement of the stalk stomper.” (‘432 Patent, JA Ex. A, col. 5, ll. 1, 6-7.) Plaintiff argues this claim language is evidence that “retention means” refers to a physical structure. (Pl’s Br. at 14.). While this may be true, the relevant question is not whether the words in the claim indicate the existence of some type of physical structure. See *Laitram Corp. v. Rexnord, Inc.*, 939 F.2d 1533, 1536 (Fed. Cir. 1991) (“The recitation of some structure in a means-plus-function element does not preclude the applicability of section 112[.]”). The question, rather, is whether the words in the claim “have a sufficiently definite meaning as the *name for the structure*.” *Williamson*, 792 F.3d at 1348 (emphasis added). And the answer to this question is no. A person of ordinary skill in the art would not be able to extrapolate a name for the structure acting as a “retention means” on the invention simply based on the fact that retention means are “on the plate member” and “engag[ed]” by a pin. (‘432 Patent, JA Ex. A, col. 5, ll. 1, 6-7.)

The patent specification supports the conclusion that the term “retention means” is governed by § 112(f). The summary section states that “[r]etention means in the form of a retention stop *are* provided on the plate member,” (‘432 Patent, JA Ex. A, col. 2, ll. 38-39 (emphasis added)), while the description of the invention states that “[p]rovided on the angle plate member 26 *are* retention means 27, which may be a retention block or a retention stop.” (*Id.* at col. 4, ll. 2-4 (emphasis added).) The plural form of “retention means,” as used in the claim language, does not evoke a definite structure. On the contrary, the plural form suggests that “retention means” may encompass multiple types of structures and/or methods of performing the particular function. See MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY 955 (11th ed. 2003) (defining “plural” as “a class of grammatical forms [usually] used to denote more than one”). Plaintiff argues the above language, as well as other language in the summary section, rebuts the presumption that § 112 applies because it “defines ‘retention means’ as being ‘in the

form of a retention stop” that “abuts a pin member.” (Pl’s Br. at 15.) The statement that “A is in the form of B,” however, is not the same the statement that “A equals B,” especially when the Federal Circuit has “warned against importing [such] limitations from the specification into the claims absent a clear disclaimer of claim scope.” *Andersen Corp.*, 474 F.3d at 1373. This language that Plaintiff emphasizes, therefore, is best understood as part of the second step in the court’s means-plus-function analysis—identification of “the corresponding structure . . . described in the specification,” 35 U.S.C. § 112(f)—as opposed to the court’s preliminary analysis of whether the claim term is subject to the requirements of § 112(f).

Having determined that “retention means” is a means-plus-function term governed by § 112(f), the court turns to the next step: “identify[ing] the claimed function.” *Williamson*, 792 F.3d at 1351. That step is relatively straightforward here. The claim states that a “pin engag[es] the retention means so as to prevent longitudinal movement of the stalk stomper with respect to the tool bar assembly in operation to prevent the cross bar from disengaging from the recesses in use” (‘432 Patent, JA Ex. A, col. 5, ll. 6-8.) A person of ordinary skill in the art of the invention would thus understand the function of retention means to be “prevent[ing] longitudinal movement of the stalk stomper with respect to the tool bar assembly” and “prevent[ing] the cross bar from disengaging from the recesses in use.” *Id.*

Next, with this function in mind, “the court must determine what structure, if any, disclosed in the specification corresponds to the claimed function.” *Williamson*, 792 F.3d at 1351. An examination of the specification shows a clear and unambiguous disclosure of such structure. As mentioned above, the summary section explains that “[r]etention means in the form of a retention stop are provided on the plate member.” (‘432 Patent, JA Ex. A, col. 2, ll. 38-39.) Likewise, the description of the invention section states: “[p]rovided on the angle plate member 26 are retention means 27, which may be a retention block or a retention stop.” (*Id.* at col. 4, ll. 2-4.) The drawing of the preferred embodiment also depicts a retention block or stop, specifically in the form of an L-shaped bracket (see element 27 depicted in FIG. 6 above).

Defendants argue that the structure corresponding to “retention means” is limited to the L-shaped bracket portrayed in the preferred embodiment drawing because it is “the only depicted embodiment” of the structure contained in the patent. (Defs’ Br. at 6.) As Defendants point out, this was also the conclusion reached by the PTAB. (See PTAB Decision, JA Ex. C, at 9.) Plaintiff, on the other hand, contends that “retention means” should not be limited to the L-shaped bracket, but instead may include “any shape block or stop that retains the position of the stalk stomper with respect to the mounting bracket by restricting the longitudinal movement via engagement with a pin member, and equivalents thereof.” (Pl’s Br. at 18.) In support of its argument, Plaintiff underscores that the L-shaped bracket only appears in the drawing of the preferred embodiment, whereas the text itself refers to “retention means” as a stop or block without limiting it to any particular shape. (*Id.*)

The court agrees with Plaintiff that the structure corresponding to “retention means” is not limited to an L-shaped bracket.⁸ Throughout the patent, “retention means” is repeatedly referred to in the written description as a retention “stop” or “block.” (See, e.g., ‘432 Patent, JA Ex. A, col. 2, ll. 38-39, 44-46; col. 3, ll. 33-35; col. 4, ll. 2-4; col. 5, 10-14, 21-25.) No patent language confines the retention stop or block to a specific shape. Although the preferred embodiment drawings portray the retention stop or block as an L-shaped structure, a patentee cannot be expected to include all possible forms of the invention in the patent figures. Nor was the patentee here required to do so. Just as patent drawings “may not be relied on to show particular sizes if the specification is completely silent on the issue,” *Hockerson-Halberstadt, Inc. v. Avia Group Intern, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000), patent drawings may not be relied on to show particular shapes where the specification is silent and the patent drawings only depict a preferred embodiment.

⁸ Although the court’s conclusion differs from the findings of the PTAB, because review of patent language and other intrinsic evidence for purposes of claim construction is solely a determination of law, the PTAB’s claim construction findings are subject to *de novo* review by this court. *Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc.*, 135 S.Ct. 831, 841 (2015).

The court concludes that Plaintiff's suggested construction of the means-plus-function term "retention means" is consistent with the corresponding structure disclosed in the specification. The court, therefore, adopts the following construction of the term: "a block or stop that retains the position of the stalk stomper with respect to the mounting bracket by restricting the longitudinal movement via engagement with a pin member, and equivalents thereof."

2. Retention Means On the Plate Member

Relatedly, the parties dispute the meaning of the phrase "[r]etention means on the plate member," which appears in claim 1 of the '432 Patent. ('432 Patent, JA Ex. A, col. 5, line 1.) Plaintiff contends the phrase should be construed to mean that the retention means is "supported by the plate member," while Defendants argue the phrase should be construed to mean retention means is "positioned to be in contact with the plate member." (Claim Construction Chart, Ex. 1.) The court dispenses with both proposed constructions, as both are inconsistent with the commonly understood meaning of the basic word "on."

Defendants' proposed construction of "on the plate member" is far too broad. It is common for an object to be "positioned to be in contact" with one another object, without the first object necessarily being "on" the second object. A fork and spoon lying side-by-side, for example, may be "positioned to be in contact" with each other, without the fork being "on" the spoon, or vice versa. Plaintiff's proposed construction of the phrase "on the plate member," however, is also overbroad. Skyscrapers are supported by their frames, but one would not describe skyscrapers as being "on" their frames. The ordinary meaning of the word "on" is "physically in contact with and supported by the top surface of." MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 864 (11th ed. 2003). The parties offer no compelling reason for departing from that ordinary meaning. The court thus adopts the following construction of "retention means on the plate member": "retention means physically in contact with and supported by the surface of the plate member."

F. Retention Member ('963 Patent)

Claim Term	Plaintiff's Proposed Construction	Defendants' Proposed Construction
retention member	<p>If not subject to 112(f): "a structure included with the support member, such as a block or stop, adapted to physically engage a pin member and hold the position of the support member in place relative to the bracket."</p> <p>If subject to 112(f): "a structural stop or block included with the support member"</p>	<p>If not subject to 112(f): "a plurality of pairs of adjustment holes formed along an arcuate path"</p> <p>If subject to 112(f): "a retention block or retention stop in the form of an L-shaped bracket"</p>

A similar issue is in dispute with respect to the term "retention member," which appears in claims 6, 7, 11, and 12 in the '963 Patent. Claim 6 states that the support member includes a "retention member . . . adapted such that when the support member and the bracket member are engaged the pin member . . . engages the retention member of the support member to restrict longitudinal movement of the support member" ('963 Patent, JA Ex. B, col. 9, ll. 3-8.) Claims 11 and 12, meanwhile, specify particular forms of the retention member, claim 11 explaining that "the retention member comprises at least one pair of mounting holes," and claim 12 stating that "the retention member comprises a plurality of pairs of adjustment holes formed along an arcuate path." (*Id.* at col. 9, ll. 22-27.)

Defendants assert that, like "retention means" in the '432 Patent, "retention member" is a means-plus-function term subject to § 112(f), which should be construed identically with "retention means." (Defs' Br. at 9-10.) The term "retention member" used in the '932 Patent does not use the word "means," but Defendants urge that § 112(f) nonetheless applies because the patent claims "recite no structure for this term," and the use of the term "substantially parallels the recitation of 'retention means'" in the '432 Patent. (Defs' Br. at 9.) In the alternative, Defendants argue, if the court finds "retention member" is not a means-plus-function

term, it should be construed as “a plurality of pairs of adjustment holes formed along an arcuate path,” as recited in Claim 12 of the ‘963 Patent. (*Id.* at 11.)

Plaintiff rejects the contention that “retention member” is a means-plus-function term under § 112(f), urging that the absence of the word “means” creates a presumption that § 112(f) does *not* apply. (Pl’s Br. at 24; see *also* Pl’s Notice of Recent Legal Authority at 2 [93].) This presumption, according to Plaintiff, has not been rebutted because the patent language shows that “retention member” denotes a structural obstruction that engages a pin. (*Id.*)

Indeed, until recently, the Federal Circuit had concluded that the absence of the word “means” in a claim term creates a “strong” presumption that § 112(f) does not apply. *Williamson*, decided earlier this year, changes things. 792 F.3d at 1349. According to the *Williamson* court, the absence of the word “means” creates a presumption that the term is not governed by § 112(f), but no “heightened evidentiary showing” is needed to rebut this presumption. *Id.* Rather, the presumption can be overcome merely by showing “that the claim term fails to recite sufficiently definite structure” or else recites “function without reciting sufficient structure for performing that function.” *Id.* (internal citations and quotations omitted).

As with “retention means,” therefore, the court’s analysis of “retention member” hinges on whether the claim language recites a “definite structure” in reference to the term. The ‘432 and ‘963 Patents use similar language to refer to the terms “retention means” and “retention member.” Not only does each term include the word “retention,” but each term also performs the same function: to prevent, or restrict, longitudinal movement of the stalk stomper. (‘432 Patent, JA Ex. A, col. 5, line 7 (using the word “prevent”); ‘963 Patent, JA Ex. B, col. 9, ll. 7-8 (using the word “restrict”).) The “retention means” and “retention member” are also both “engag[ed]” by a pin once it is inserted into bracket holes on the assembly. (‘432 Patent, JA Ex. A, col. 2, ll. 6-7; ‘963 Patent, JA Ex. B, col. 9, line 6.) Claim 6 of the ‘963 Patent contains no additional guidance regarding the structure of the “retention member.” Thus, for the same

reasons that the court concluded “retention means” is a means-plus-function term, the court also construes “retention member” as a means-plus-function term under § 112(f).

Having determined that “retention means” and “retention member” serve the same function—to prevent, or restrict, longitudinal movement of the stalk stomper—the court turns to the remaining issue: identifying the disclosed “structure . . . [that] corresponds to the claimed function.” *Williamson*, 792 F.3d at 1351. Dependent claims 11 and 12 in the ‘963 Patent state that “the retention member comprises at least one pair of mounting holes,” in one embodiment, and “a plurality of adjustment holes formed along an arcuate path,” in another. (‘963 Patent, JA Ex. B, col. 9, ll. 23-27.) The specification does not mention the term “retention member,” but does refer to the structures “detent,” “retention stop,” and “stop member” as carrying out the same function. (See, e.g., ‘963 Patent, Ex. B, col. 2, ll. 7-8, 15, 39; col. 4, line 64.) This is, again, very similar to the ‘432 Patent specification, in which “retention stop” or “retention block” are the disclosed structures. This court will thus adopt the same construction as it did for the ‘432 Patent. “Retention member” is construed as: “a block or stop that retains the position of the stalk stomper with respect to the mounting bracket by restricting the longitudinal movement via engagement with a pin member, and equivalents thereof.” This construction is consistent with the patent language, as a “block or stop that retains the position of the stalk stomper” can be comprised of either a “pair of mounting holes” (claim 11) or “a plurality of adjustment holes formed along an arcuate path” (claim 12).

G. Whereby Clause (‘432 Patent)

Claim Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
stalk stomper is pivoted	Process language is not a claim limitation	stalk stomper is rotated about a transverse axis through the cross bar while the cross bar is engaged in the recesses so as to connect the stalk stomper to the tool bar assembly
stalk stomper is pivoted so that the plate member is	Not a limitation.	stalk stomper is pivoted to position the plate member

above the pair of holes	If a limitation, “at least a portion of the plate member is positioned above the holes in the bracket”	between a bottom of the bracket and a top of the pair of holes such that the pin is under the plate member when the pin is inserted into the pair of holes
to connect the stalk stomper to the tool bar assembly, the cross bar is engaged in the recesses and the stalk stomper is pivoted so that the plate member is above the pair of holes and the pin can be inserted into the transversely aligned holes	Process language is not a claim limitation.	to connect the stalk stomper to the tool bar assembly: first, the cross bar is engaged in the recesses; second, with the cross bar engaged in the recesses, the stalk stomper is then pivoted so that the plate member is above the pair of holes; and third, with the stalk stomper so pivoted, the pin can then be inserted into the transversely aligned holes

The next three disputed terms hinge on whether the “whereby” clause in claim 1 of the ‘432 Patent imposes limitations on the patented invention. The “whereby” clause appears in claim 1 of the ‘432 Patent as follows:

whereby, to connect the stalk stomper tool bar assembly, the cross bar is engaged in the recesses and the stalk stomper is pivoted so that the plate member is above the pair of holes and the pin can be inserted into the transversely aligned holes to connect the stalk stomper to the tool bar assembly, the pin engaging the retention means so as to prevent longitudinal movement of the stalk stomper with respect to the tool bar assembly in operation to prevent the cross bar from disengaging from the recesses in use

(‘432 Patent, JA Ex. A, col. 5, ll. 1-10.)

It is well established that a “whereby” clause does not limit a claim when it merely expresses the “intended result” of the limitations already stated in the claim. *Minton v. Nat’l Ass’n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381 (Fed. Cir. 2003); *Texas Instruments Inc. v. United States Int’l Trade Comm’n*, 988 F.2d 1165, 1172 (Fed. Cir. 1993). When a “whereby” clause expresses a “condition that is material to patentability,” however, “it cannot be ignored” *Hoffer v. Microsoft*, 405 F.3d 1326, 1329 (Fed. Cir. 2005). Although both *Hoffer* and *Minton* interpreted a “whereby” clause in the context of a method claim, *Hoffer* did not confine its “materiality” test to method claims. Accordingly, the court assumes the same

analysis applies to apparatus claims. See, e.g., *Titan Atlas Inc. v. Sisk*, 894 F.Supp.2d 754, 762 (W.D. Va. 2012) (applying *Hoffer* to a “whereby” clause in an apparatus claim). The key question, therefore, is whether the clause expresses a “condition that is material to patentability.” *Id.* By the same token, a clause that simply recites the result of an already established limitation is not considered “material.” *Minton*, 336 F.3d at 1381.

Defendants argue the “whereby” clause in claim 1 should be construed as a limitation because it introduces new conditions material to patentability that are more than “the intended result” of other limitations in the claim. (Defs’ Br. at 19-20.) Specifically, Defendants propose, the “whereby” clause limits the method of connecting the stalk stomper to the tool bar as requiring the following steps: first, the cross bar is engaged in the recesses; second, with the cross bar engaged in the recesses, the stalk stomper is pivoted so that the plate member is above the pair of holes; and third, with the stalk stomper pivoted, the pin can then be inserted into the transversely aligned holes. (*Id.* at 20.) In addition, they contend the particular phrases “stalk stomper is pivoted” and “plate member is above the pair of holes,” which both appear in the “whereby” clause, impose further limitations on the claim. (*Id.* at 21-23.) Plaintiff, meanwhile, advocates for a distinction between construing “whereby” clauses in “method claims” versus “apparatus claims.” (Pl’s Br. at 21-22.) Claim 1 is an “apparatus claim,” Plaintiff observes, while the “whereby” clause describes the “method” for connecting the stalk stomper to the tool bar assembly. (*Id.*) As a result, Plaintiff contends, the court should not read these so-called process limitations into the claim because they add no new conditions to the apparatus or structure itself. (*Id.*)

In support of its position, Plaintiff cites *Baldwin Graphic Sys., Inc. v. Siebert, Inc.*, where the Federal Circuit cautioned that “[c]ourts must generally take care to avoid reading process limitations into an apparatus claim . . . because the process by which a product is made is irrelevant to the question of whether that product infringes on a pure apparatus claim.” 512 F.3d 1338, 1345 (Fed. Cir. 2008) (internal citations omitted). In *Baldwin*, the court held the phrase

“reduced air content cleaning fabric” in an apparatus claim could not be construed together with a similar phrase in a process claim, “reducing air content of a strip of cleaning fabric,” because each claim involved a different class of patentable subject matter under 35 U.S.C. § 101. *Id. Baldwin* did not involve a “whereby” clause, however, and therefore does not change the general rule that when determining whether a “whereby” clause limits a claim, courts must focus on whether the conditions cited in the clause are “material to patentability.” *Hoffer*, 405 F.3d at 1329. Indeed, Plaintiff acknowledges this much. (Pl’s Br. at 21.)

Baldwin asserts, more generally, that courts should avoid reading process limitations into apparatus claims. Here, the court need not decide whether *Baldwin*’s teaching governs the court’s interpretation of the “whereby” clause. Conditions recited in the “whereby” clause in this parent are material to patentability to the extent they relate to the function of the term “retention means,” not to the process by which the stalk stomper is assembled. See *Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319, 1135 (Fed. Cir. 2009) (“[F]unctional language can be a claim limitation.”) (citing *Microprocessor Enhancement Corp. v. Tex. Instruments Inc.*, 520 F.3d 1367, 1375 (Fed. Cir. 2008)). The relevant part of the “whereby” clause provides: “so that the plate member is above the pair of holes and the pin can be inserted into the transversely aligned holes to connect the stalk stomper to the tool bar assembly, the pin engaging the retention means so as to prevent longitudinal movement of the stalk stomper” (‘432 Patent, JA Ex. A, col. 5, ll. 1-8.) The “whereby” clause, therefore, describes the function of the retention means as “prevent[ing] longitudinal movement of the stalk stomper,” which, as mentioned by the PTAB, is not identified anywhere else in the claim language. (JA Ex. C, at 8; ‘432 Patent, JA Ex. A, col. 5, line 1.) The function of the retention means is certainly an “integral part of the invention.” *Hoffer*, 405 F.3d at 1330.⁹

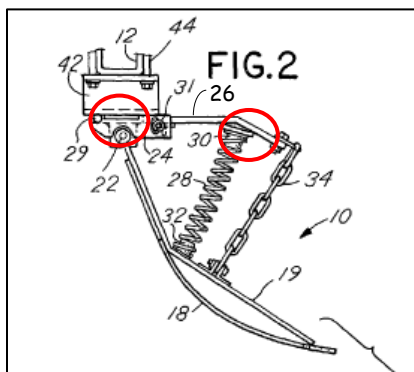
⁹ Plaintiff implicitly concedes that the “whereby” clause at least imposes some limitations: it argues that the phrase “pin engaging the retention means” limits retention means to a particular structure that abuts a pin. (Pl’s Br. at 15.)

As the court reads the above language, it also identifies a necessary part of the retention means' function: the plate member must be "above the pair of holes" so that the pin can be inserted into the holes and engage the retention means. The disputed phrase "so that the plate member is above the pair of holes," therefore, is material to patentability and imposes a functional limitation on the claim. ('432 Patent, JA Ex. A, col. 5, line 4.) This finding is consistent with Federal Circuit case law holding the phrase "such that" can operate as a claim limitation where it is followed by functional language. See *Cordis Corp.*, 561 F.3d at 1336 (holding that a stent patent claim phrase "such that the links and bands define an expandable structure having axial flexibility in an unexpanded configuration" limited the claim to stents "having axial flexibility").

The next question is how the phrase should be construed to limit the claim. Defendants argue the phrase "so that the plate member is above the pair of holes" should be construed to mean the "stalk stomper is pivoted to position the plate member between a bottom of the bracket and a top [*sic*] the pair of holes such that the pin is under the plate member when the pin is inserted into the pair of holes." (Claim Construction Chart, Ex. 1.) A person of ordinary skill in the art of this invention, according to Defendants, would understand that the pin, once inserted into the bracket holes, acts as a support for the stalk stomper. (Defs' Br. at 22-23.) The pin can only provide this support, moreover, if it is positioned "under" the plate member. (*Id.* at 23.) To the extent the clause is limiting, Plaintiff proposes "the plate member is above the pair of holes" means simply that "at least a portion of the plate member is positioned above the holes in the bracket." (Claim Construction Chart, Ex. 1.) Plaintiff points to the preferred embodiment drawing of the invention, which, as discussed below, supports its position. (Pl's Br. at 23.)

Although courts must generally avoid imposing limitations from a preferred embodiment into a patent claim, courts also must avoid construing a patent claim in a manner that would result in the preferred embodiment falling outside the scope of the patent. *Vitronics Corp.*, 90

F.3d at 1583 (“Such an interpretation is rarely, if ever, correct and would require highly persuasive evidentiary support[.]”) As Plaintiff notes, the preferred embodiment of the invention in the ‘432 Patent depicts a plate member having a substantial portion above the holes and inserted pin member, and a minor portion below the holes and inserted pin member:



(‘432 Patent, JA Ex. A, FIG. 2 (emphasis added).) Plaintiff, therefore, is correct that it would be improper to construe “above” as requiring the entire plate member to be in a position higher than the holes and inserted pin. (Pl’s Br. at 23.)¹⁰ It would also be improper to construe “above” as requiring the plate member to be positioned “between a bottom of the bracket and . . . the pair of holes,” as Defendants urge the court to do (Claim Construction Chart, Ex. 1), because nothing in the claim language supports this limited construction. The description of the preferred embodiment does provide that the “plate member 26 will be secured between the bracket 42 and the pin 31,” (Ex. A, col. 4, ll. 6-10), but, as noted earlier, the specification does not limit a patent claim absent specific evidence to the contrary. *Deere & Co.*, 703 F.3d at 1354; *Andersen Corp.*, 474 F.3d at 1373.

The common meaning of “above” means “in . . . a higher place than.” MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY 4 (11th ed. 2003). Merely construing the word “above”

¹⁰ Contrary to Plaintiff’s assertions, Defendants’ proposed construction would not require the entire plate member to be above the bracket holes. (*See id.*) The plate member can be “a top [sic] of the pair of holes such that the pin is under the [inserted] plate member,” (Defs’ Br. at 22) while also having a portion of the plate member below the holes and inserted pin member, as depicted in the preferred embodiment.

according to its common meaning, however, would not resolve the parties' dispute over whether the patent requires the *entire* plate member, as opposed to *a portion of* the plate member, to be in a higher place than the bracket holes. As mentioned above, the preferred embodiment drawing in the '432 Patent precludes a construction of "above" as requiring the entire plate member to be higher than the bracket holes. At the same time, however, Plaintiff's suggestion that "above" merely requires "*at least a portion of* the plate member [to be] positioned above the holes in the bracket," (Claim Construction Chart, Ex. 1 (emphasis added)), is not consistent with the way that a person of ordinary skill in the art would understand that term. Although Plaintiff uses the example of a boat, which may be simultaneously above and below the water's surface, (Pl's Br. at 23), a boat is only "above" water when a substantial portion of the boat is higher than the water's surface. Otherwise, the boat is sinking, or at least appears to be. Likewise, the plate member is not necessarily "above" the bracket holes whenever any portion of the plate member is positioned above the holes. It can only be "above" the bracket holes if a substantial portion of the plate member is higher than the holes.

Accordingly, this court construes the phrase the stalk stomper is pivoted "so that the plate member is above the pair of holes" as: the stalk stomper is pivoted "so that a substantial portion of the plate member is in a higher place than the pair of holes." (JA Ex. A, col. 5, ll. 1-8.) This construction is consistent with the claim language, preferred embodiment, and other intrinsic evidence.

It is unnecessary to construe the remaining disputed terms that appear in the "whereby" clause because they do not relate to the function of "retention means," nor are they material to patentability. Specifically, the meaning of the term "pivoted," and whether the stalk stomper is pivoted at all, is not integral to the invention. Rather, the fact that the stalk stomper is "pivoted" is merely a result of other limitations already recited in the claim; in order for the cross bar to be received in the recesses and the pin inserted into the bracket holes, engaging the retention means, the stalk stomper must be pivoted. Similarly, the court rejects Defendants' contention

that the “whereby” clause should be construed to require three steps performed in a specific sequence. (Defs’ Br. at 23.) Unlike the terms relating to the function of retention means, a recitation of the sequence in which certain actions occur to connect the stalk stomper to the tool bar assembly is purely a process issue. Defendants provide no evidence that this process was material to, much less considered in, the intrinsic record.

In sum, the only claim limitations imposed by the “whereby” clause relate to the function of the “retention means,” which includes the following disputed phrase: “so that the plate member is above the pair of holes.” The court construes this phrase as: “so that a substantial portion of the plate member is in a higher place than the pair of holes.” (JA Ex. A, col. 5, ll. 1-8.)

H. Transversely (‘432 and ‘963 Patent)

Claim Term	Plaintiff’s Proposed Construction	Defendants’ Proposed Construction
transversely	being across	directed along a line parallel to an axis about which the cross bar pivots when the cross bar is engaged in the recesses

The last disputed term, “transversely,” is used in the claims of both patents to describe the placement of holes and recesses in the bracket arm members of the device.¹¹ Claim 1 of the ‘432 Patent includes the following recitation: “the tool bar assembly comprising a bracket having a pair of spaced-apart arm members . . . each having a recess therein, the recesses being generally transversely aligned and a pair of holes in the bracket . . . being generally transversely aligned” (‘432 Patent, JA Ex. A, col. 4, ll. 59-64.) Claims 1 and 6 of the ‘963 Patent contain similar language, claim 1 stating that the stalk stomper assembly includes “two sidewall members defining a pair of transversely opposed attachment holes” and claim 6 stating

¹¹ In their brief, Defendants also dispute the term “transverse.” (Defs’ Br. at 24.) Plaintiff’s brief, however, only mentions the term “transversely,” (Pl’s Br. at 20), as does Defendants’ reply brief, (Defs’ Reply Br. at 15), and the Joint Claim Construction Chart submitted by the parties. (Claim Construction Chart, Ex. 1.) Accordingly, this court will only construe the claim term “transversely.”

that the assembly includes a pair of arm members “defining a recess, the first and second arm member recess being transversely aligned.” (‘963 Patent, JA Ex. B, at col. 8, ll. 14, 52.)

Both parties agree that “transversely” is a commonly understood term, yet each party has advocated for a different meaning. (Defs’ Br. at 24; Pl’s Br. at 20.) Defendants contend “transversely” should be construed as “directed along a line parallel to an axis about which the cross bar pivots when the cross bar is engaged in the recesses.” (Defs’ Br. at 24.) Plaintiff, meanwhile, argues “transversely” means “being across.” (Pl’s Br. at 20.) For the reasons explained below, this court finds that Plaintiff’s proposed construction is the correct one.

As with all other terms, this court’s analysis of the term “transversely” begins with the words of the claims themselves, in view of the specification. *Phillips*, 415 F.3d at 1315. The commonly understood meaning of “transverse” is “acting, lying, or being across.” MERRIAM-WEBSTER’S COLLEGIATE DICTIONARY 1331 (11th ed. 2003). “Transverse” can also mean “made at right angles to the long axis of the body.” *Id.* A “transverse section,” for example, is a cross section obtained by slicing the body (or any part of the body) in a horizontal plane that intersects the longitudinal axis at a right angle.

A review of the claim language shows the term “transversely” should be construed according to its common meaning, “acting, lying, or being across.” Throughout the claims, “transversely” modifies the word “aligned,” and in the case of the ‘963 Patent, the word “opposed.” (See, e.g., ‘432 Patent, JA Ex. A, col. 4, line 64; ‘963 Patent, JA Ex. B, col. 8, ll. 14, 52.) Both “aligned” and “opposed” typically describe the position of one thing relative to another. One may state, for example, that “stars are aligned” or “opinions are diametrically opposed.” Thus, the fact that the holes and recesses are described as being “transversely aligned” or “transversely opposed” appears to refer to the relationship between the holes and between the recesses, not their relationship with an axis. *Phillips*, 415 F.3d at 1314 (“[T]he context in which a term is used in the asserted claim can be highly instructive.”). The use of the phrase “transversely opposed” in the ‘963 Patent especially shows that “transversely” refers to

holes and recesses positioned across from, and opposite to, one another. See MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY 871 (11th ed. 2003) (defining "opposite" as "set over against something that is at the other end or side of an intervening line or space"). And, contrary to Defendants' contention, nothing in the specification, prosecution history, or other intrinsic evidence supports the alternate construction. In fact, like the claims themselves, the specification in each patent also describes the holes and recesses as being "transversely aligned." (See, e.g., '432 Patent, JA Ex. A, col. 1, ll. 42, 45, 62; col. 2, ll. 14, 23; col. 4, ll. 1-2, 26-27; '432 Patent, JA Ex. B, col. 2, ll. 1, 4, 13, 37, 42, 53.) To support their position, Defendants primarily rely on a technical dictionary definition of "transverse," as well as an expert declaration. (Defs' Br. at 24-25.) It is well established, however, that these forms of extrinsic evidence are of less significance than the intrinsic record. *Phillips*, 415 F.3d at 1317 (citing *C.R. Bard, Inc. v. U.S. Surgical Corp.*, 388 F.3d 858, 862 (Fed. Cir. 2004)).

Because there is no reason why the meaning of "transversely" should depart from its commonly understood meaning, this court concludes that Plaintiff's construction more accurately captures the meaning of the term. Thus the court construes the term "transversely" as: "across from."

CONCLUSION

The claim terms in the '432 Patent and '963 Patent are construed in accordance with the foregoing.

ENTER:



Dated: October 5, 2015

REBECCA R. PALLMEYER
United States District Judge